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**Determination of the Uniqueness of
Reserves and Productivity from the
Middle Bakken and the Three Forks
Sanish Zones**

Submitted by Continental Resources, Inc.

Principal Investigator: Gene Carlson

Request for \$1,395,000;

Total Project Costs \$7,395,000

Project Duration: 8/9 months

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- The objective to determine if the Middle Bakken and Three Forks production are separate and distinct reservoirs.
- If the two intervals are actually separate and distinct, producible reserves per spacing unit would greatly increase, where the productive intervals overlap and with proper development.

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Discussion

- Recently, the OGRC received the final report for Grant G-15-028: Hydraulic Fracturing and Microseismic Monitoring Project authored by the Bakken Research Consortium, headed by XTO (Headington).
- One conclusion drawn from this project is relevant to the discussion of funding the CRI proposal under consideration.
- That conclusion states that: ***“Based on frac modeling done on gathered data, it is likely fracs are growing into the Three Forks but may not be effectively propped open.”***

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Discussion

- That conclusion begins to address the basic research question being asked by CRI.
- In some middle Bakken wells there appears to be communication between the underlying Three Forks.
- The Consortium appears to assume that communication was caused artificially, by downward fracture growth.
- The data collected by the Consortium does not and may not be able to address whether there were existing avenues of communication between the two intervals, prior to fracturing; a fundamental question that needs to be addressed.

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Technical Review

- There were three independent technical reviewers for this project; all recommend that *funding for the project be considered*.
- The average weighted technical reviewers score: 177.8 of 250 possible maximum.

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Recommendation

OGRC Technical Advisors

- The proposal was reviewed only by one Technical advisor (Fischer).
- In light of the data now available from the Consortium project, it is recommended that the project as designed not be funded, in-as-much as the initial well in the CRI program has already been drilled and fractured.
- It is recommended that CRI be asked to redesign a project with 'grass-roots' wells to better begin to address the question of cross-formational communication.

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Recommendation

OGRC Technical Advisors

- It should also be noted that this question will not be fully answered through research on one or two wells. Additional sites in various lithologies and differing tectonic regimes will need to be evaluated by Industry.
- Should the Council decide to fund the project, it is suggested that the Council not fund one budget item: three months of deferred production, calculated to have a value of \$750,000.00.